



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **Katsuto TANAHASHI et al.**

Group Art Unit: **Unknown**

Serial No.: **10/743,793**

Examiner: **Unknown**

Filed: **December 24, 2003**

Confirmation No.: **2495**

For: **SEMICONDUCTOR SUBSTRATE AND MANUFACTURING METHOD  
THEREOF**

Attorney Docket No.: **032206**

Customer Number: **38834**

**INFORMATION DISCLOSURE STATEMENT**  
**PURSUANT TO 37 CFR 1.97(b)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

March 25, 2004

Sir:

Applicants direct the attention of the Patent and Trademark Office to the documents listed on the attached Form PTO-1449. A copy of each listed document is attached.

No fee or certification is required in connection with this Information Disclosure Statement, because it is being submitted prior to the issuance of a first official action on the merits or expiration of the three month period following the filing date or the entry of the national stage of the above-captioned application.

The above information is presented so that the Patent and Trademark Office can, in the first instance, determine any materiality thereof to the claimed invention. Applicants respectfully request that the information be expressly considered during the prosecution of this application and that the documents cited in the attached Form PTO-1449 be made of record therein and appear on the first page of any patent to issue therefrom.

Information Disclosure Statement 1.97(b)

Attorney Docket No.: **032206**

March 25, 2004

The Commissioner is authorized to charge our Deposit Account No. 50-2866 for any fee that is required to effect consideration of this statement.

Respectfully submitted,

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Attachments: PTO Form-1449  
(Eleven) 11 References

INFORMATION  
DISCLOSURE  
CITATION  
PTO-1449

Atty. Docket No. 032206 Serial No.: 10/743,793

Applicant(s): Katsuto TANAHASHI, et al.

Filing Date: December 24, 2003 Group Art Unit: Unknown

MAR 25 2004

**U.S. PATENT DOCUMENTS**

Examiner Initial		Document No.	Name	Date	Class	Subclass	Filing Date (If appropriate)
		U.S. 4,885,257	Matsushita	12/5/1989	437	11	June 2, 1987
		U.S. 6,277,501 B1	Fujikawa	8/21/2001	428	641	August 21, 2001

**FOREIGN PATENT DOCUMENTS**

Examiner Initial		Document No.	Date	Country	Translation (Yes or No)
		60-31231	2/18/1985	JP	Yes-Abstract (See U.S. Pat, 4,885,257)
		10-50715	2/20/1998	JP	Yes-Abstract (see U.S. Pat. 6,277,501B1)
		11-204534	7/30/1999	JP	Yes-Abstract & Partial English Translation Claim 1
		2002-208596A	7/26/2002	JP	Yes-Abstract & Partial English Translation Claim 1-3
		2000-72595A	3/7/2000	JP	Yes-Abstract
		10-229,093A	8/25/1998	JP	Yes-Abstract

**OTHER DOCUMENTS**

		M.J. Binns, et al., "The Control of Boron Autodoping During Device Processing For P/P+ EPI Wafers With No Back-Surface Oxide Seal, Electrochemical Society Proceedings, Volume 2002-2, pp. 682-693, May 12, 2002.  M. Inaba and H. Daneda, "Low-temperature IR absorption measurement for Oxygen Precipitation in Heavily Doped Substrate, Process Development Div., Fujitsu Ltd.,; The 57 <sup>th</sup> Meeting of The Japan Society of Applied Physics and Related Societies Extended Abstracts, 7p-ZG-5, 1996.  Y. Shirakawa et al., "Annealing Behavior of Carbon-Oxygen Complexes in Silicon Crystals Observed By Low-temperature Infrared Absorption", J. Applied Physics 77, pp. 41-46, January 1, 1995.
Examiner		Date Considered